the present invention ●　　　　　●

Detailed Description Text (16):

Another routine will be provided to allow user viewing of all coupon records beginning with a selected letter of the alphabet. Generally, this letter will correspond with the first letter in the brand or manufacturer name of the product. Each time the user presses the "Letters" key 37, a letter of the alphabet will appear sequentially in a miniature display panel 39. When the desired letter appears in display 39, pressing the "Enter" key 38 will prompt microprocessor 25 to display on screen 3 all coupon records beginning with the chosen letter. The same routine may use multiple letters to identify products. By selecting a letter with the "Enter" key 38 and then repeating the steps for a second letter, all products whose spelling begins with those two letters will be displayed. It will be understood that this is a form of dynamic queue wherein further key strokes will further define the search of coupon records to form a more finite queue. An alternative to the alphabetic keying mechanism described above could be a complete alphabetic keypad.

Detailed Description Text (19):

Another routine of coupon card 1 will allow transfer of coupon records between coupon cards 1 previously purchased to a more recently purchased coupon card 1. The user will first determine what coupon records will be transferred. Unless the user desires to transfer all coupons, he must place the coupons to be transferred into a selected group. This is accomplished by the user moving a coupon item to the "Active Coupon" area of screen 3 by any of the routines described above. The user then presses "Group" key 44 to place this coupon record in the "group" file. This procedure is continued until the user has placed all the coupon records to be transferred into the new file. The file may be reviewed by clearing the "Active Coupon" area of screen 3 and then pressing "Group" key 44. Having produced the display of the entire "group" file, coupon records can be selectively removed from the new "group" file by placing a "grouped" coupon record in the "Active Coupon" area and pressing "-" key 43. The entire new file could be erased by pressing "All" key 32 followed by "-" key 43, during the display of the group file.

Detailed Description Text (23):

While coupon card 1 allows the user to electronically store and organize coupons, a second element of the present invention is needed to redeem the coupons. This second element is the coupon card cashier periphery or periphery device 100. As seen in FIG. 10, periphery device 100 will be positioned at the customer check-out stand in the vicinity of cash register 150. Cash register 150 will be of a conventional type such as manufactured by IBM or NCR that registers a purchased item by receiving bar codes from a conventional bar code scanner interfacing with cash register 150. While two examples of cash register 150 could be an IBM model 4680 or model 4690, periphery device 100 is intended to be compatible with any type of cash register capable of carrying out conventional cash register functions. The bar code on the purchased item allows the cash register to identify and enter into its memory information such as the item's brand, size and retail price. This information is referred to herein as "purchase data". As seen schematically in FIG. 13, periphery device 100 will have a communications port 107 which will typically be a conventional serial port with a serial to parallel converter which will allow the transfer of purchase data from cash register 150 to the transaction buffer 116 under the control of microprocessor 113. Transaction buffer 116 will store the purchase data during the operations carried out by periphery device 100. Periphery device 100 will also include a ROM means 115 from which microprocessor 113 will read the numerous routines explained below. The operating software of the periphery device 100 will allow it to read conventional bar code systems found on most coupons including Series 5, extended suffix, UCC/EAN 128 bar codes and D3 coupon bar codes where applicable.

Detailed Description Text (27):

In process steps 97 and 98, records having redemption requirement data and a corresponding bar code will be searched for any records with expiration dates that have been expired for more than a given time period and these records will be marked for overwriting. The routine will also search for coupon records having only bar codes which fulfill two criteria: the records will have had no corresponding redemption requirement data for more than a given time period; and coupon card 1 has been inserted into periphery device 100 more than a certain number of times while the record has been in coupon card 1. Any coupon records fulfilling these criteria will be marked for overwriting. The routine will then identify and queue all coupon records with redemption requirement data which also have a raincheck code in anticipation of a customer having purchased an item covered by a coupon that could not be used prior to the expiration date. Also, while not shown in FIG. 14a, periphery device 100 will also

load the local time and date against which coupons are compared to determine expiration
dates during the start-up procedure of coupon card 1. This date cannot be altered by
the consumer. After all items being purchased are scanned into cash register 150, the
coupon redemption process is continued as indicated by the flow chart seen in FIG.
15a-15c. The purchase data from the cash register 150 will be copied to periphery
device 100's transaction buffer 116 and compared to the coupon records uploaded from
coupon card 1 as indicated by steps 160 and 161. If more than one coupon is applicable
to an item purchased, a subroutine seen in steps 162a-162e will be executed. In this
subroutine, a message on display screens 102 and 109 will inform the customer and
cashier that there is more than one applicable coupon for a product and prompt them to
select which coupon they wish to redeem (step 162a). The cashier at the customer's
direction may then scroll through the list of redeemable coupons (step 162d) and press
the "Accept" key 126 to indicate which coupon will be redeemed (step 162c). The
selected coupon will then be included in the list of redeemed coupons discussed below.

Detailed Description Text (37):
Whenever the cashier has displayed on the screens of periphery device 100 information
other than the redeemed coupon list (e.g. by pressing "Search" key 123, "All" key 125
or "Rainck" key 127), the cashier need only press "Restore" key 124 to return the
current redeemed coupon list to the display screens 102 and 109. This typically will be
done when all customer inquires have been answered and the redeemed coupon list is
considered complete. Another function that may be performed by periphery device 100
will be the selected removal of coupons from the list of coupons to be redeemed. There
may be occasions when a customer views a certain coupon which is about to be redeemed
and realizes it would be more advantageous to redeem the coupon at a later date. While
not shown in FIG. 12, periphery device could have a "Remove" key. As implied by FIG.
15a, after selecting a coupon with the highlight bar in step 166, selecting the
"Remove" key would place a marker in the coupon record as indicated in step 171. After
which, any listing of redeemed coupons will not include the coupon so marked.

Detailed Description Text (39):
While customer display screen 102 has been discussed as displaying prompting messages
and redeemed coupon lists, it could also function as an advertising media in an
alternate embodiment. When a coupon card 1 is not inserted into periphery device 100,
periphery device 100 could be used to display digital video images advertising
different products. This could be accomplished by equipping periphery device 100 with
the necessary Video RAM needed to run such digital video.

Detailed Description Text (43):
The information compiled by clearinghouse 300 from the many local servers 200 will be
used to generate at least two types of reports. The first type of report will be a
compilation for an entire chain of stores (such as a supermarket chain) of the total
amount of redemptions for the chain and the amount of redemptions for each store in the
chain. This allows the store chain to determine what amounts the manufacturers of the
couponed products owe to the store chain for that period and how these proceeds should
be distributed among the various outlets. The second type of report will be a
compilation of what redemption amounts a manufacturer owes each supermarket chain,
thereby allowing the manufacturer to reimburse the store chain. Because redeemed coupon
data is transmitted by modem to clearinghouse 300, information concerning amounts owed
by manufacturers to retailers may be distributed to the parties with a minimum of delay
and allow prompt repayment by the manufacturers. This is of great importance to
retailers since discounts given by a retailer to redeem a manufacturer's coupons are in
effect an extension of credit to the manufacturer. In the case where the coupon card
service provider charges the customer a transactional fee for using coupon card 1, the
retailer would normally collect the fees and would then be the entity to have temporary
use of these funds. An additional advantage derived from the compiling of redemption
data is the ability to generate very specific redemption rate statistics. Not only may
the statistics be generated on a national basis, but may be also be broken down into
regional, state, county, city or zip code based statistics.

Detailed Description Text (49):
The present invention provides a novel solution to this present disadvantage by
allowing a coupon already scanned into coupon card 1 to change in value. Since a
manufacturer participating in the system will receive prompt information on consumer
reaction to a coupon through the redemption reports issued by clearinghouse 300, the
manufacturer can rapidly respond to redemption rates and market feedback and "reuse"
the coupon by increasing its value nationally, regionally, or in a more specific
locale. If the manufacturer wishes to increase the coupon's value, clearinghouse 300
will, on instructions from the manufacturer, create a new bar code and new redemption

requirement data showing an increased value for the coupon's redemption. This new bar code and redemption requirement data is then transmitted to periphery devices 100 by server 200 along with other redemption requirement data for future coupons. When a coupon card is placed in periphery device 100, the original bar code of the coupon which is to be increased in value will be located and the new bar code along with the new redemption requirement data will replace the previous bar code and redemption requirement data. To make the coupon card user aware of the increase in the value of the coupon, the coupon record will contain a marker which will display the coupon on display screen 3 of coupon card 1 during the next start-up (after turning coupon card 1 on) with an appropriate message advising the user of the coupons increase in value. An example of such a message could be the "NOW" message 131 preceding the new value of the coupon as seen in FIG. 16. Of course, in the event the manufacture chooses to decrease the value of the initial coupon, the same method could be applied. This method allows a manufacturer to continually restimulate the coupon card user to buy the product covered by the coupon each time the manufacture raises the coupon's value. Alternatively, a value increase in a coupon could be based on the length of time a coupon has remained in coupon card 1 without being used. If the coupon card user does not redeem the coupon within a certain time period, the value could be increased to give him added incentive to use the coupon.

Detailed Description Text (50):
A similar advantage can be realized with the present invention through altering the value of existing coupons in order to create "series coupons". Series coupons will comprise a set of at least two coupons where the later coupons will increase in value as the earlier coupons are redeemed in a given sequence. FIG. 17 represents graphically how the present invention will carry out the series coupon system. The paper publication of the coupons will typically contain a series of multiple (three in the present example) coupons each having a separate bar code as illustrated by box 135. These coupons will be scanned into a coupon card 1 in the manner described above. When the coupon card user inserts coupon card 1 into periphery device 100 to redeem coupon #1 and all coupon records are transferred to periphery device 100, periphery device 100 will recognize coupon #1 is one of a series of coupons. Periphery device 100 then reads the other coupon records received from coupon card 1 to determine if coupons #2 and #3 have been previously redeemed (i.e. out of sequence). If coupons #2 and #3 have not been redeemed, then the coupon records for these coupons will be replaced with the coupon records of coupons #4 and #5, where coupons #4 and #5 represent a predetermined increase in value relative to coupons #2 and #3 (e.g. doubling the value) for the same product(s). The records representing the new coupons will then be transferred back to coupon card 1 and coupons #4 and #5 may be redeemed at the coupon card user's next shopping trip. The same procedure will take place when coupon #4 is redeemed and periphery device 100 reads for coupon #5 to determine if it has been redeemed. If not, then coupon #5 is replaced with a record corresponding with coupon #6. Alternatively, if coupons #2 or #3 have been redeemed out of sequence, then an increased value coupon would not replace the coupon redeemed out of sequence. Manufacturers may use series coupons to encourage consumers to buy one product as a way to increase discounts on another product. For example, if the manufacturer has a new product and wishes to encourage consumers to try it, the manufacturer may make the new product the first coupon in the series with the second and third coupons being for products of proven popularity. It will be understood that this method in effect turns a "static" coupon into a "dynamic" coupon of selectively varying values.

Detailed Description Text (51):
An additional embodiment of the present invention will comprise a method and apparatus to disseminate coupon data and advertise the products associated with the coupons. The apparatus employed will include a dispenser, which in the present embodiment is in the form of a kiosk or other stand such as seen in FIG. 18a. Dispenser 250 will be placed in stores in an area readily accessible to customers, such as at the end of an aisle in a supermarket. Dispenser 250 may include a video monitor 251 prominently positioned where it will easily be viewed by all passing shoppers. A preferred embodiment of dispenser 250 will also have a continuously scrolling message display 252 which may be similar to the SILENT RADIO.RTM. display manufactured by Cybernetic Services, Inc. of Chatsworth, Calif. The video monitor 251 and scrolling message display 252 provide advertising for coupon related products to all passing shoppers as opposed to just shoppers who read free standing inserts in which paper coupons appear. To interface with shoppers, dispenser 250 will comprise multiple stations each having a touch screen monitor 253 and coupon card insertion port 254.

Detailed Description Text (52):
FIG. 18b illustrates schematically the principle components of dispenser 250. The

operation of dispenser 250 will be controlled by microprocessor 260. The operation of
video display monitor 251 is carried out by the connection of monitor feed 251 a, sound
output 263 (such as a conventional speaker), and Video RAM (VRAM) 259 to microprocessor
260. Similarly, scrolling message display 252 will also have a feed 252a connected to
microprocessor 260 and receive the advertising data to be displayed from RAM means 261.
Microprocessor 260 will read the routines needed to operate video display monitor 251
and scrolling message display 252 from ROM means 262. In operation, dispenser 250 will
continuously display the video and scrolling message advertising information in order
to advise shoppers of the products for which the coupons may be obtained. When a
shopper inserts his or her coupon card 1 into coupon card insertion port 254, seating
device 273 (indicated by dashed lines) will position coupon card 1 such that its light
emitting diode 20 and its light responsive transistor 21 are respectively aligned with
a light responsive transistor 267 and light emitting diode 266 of communications port
272. On insertion of coupon card 1, bar code reader 264 reads the coupon card
identifier bar code 12 and insures coupon card 1 has not been reported to the coupon
card service provider as lost, stolen or delinquent. Microprocessor 260 will then
transmit to touch screen 253 through feed 253a a prompt which states the different
groups of coupons the shopper may obtain and the price for each group. For example, a
preferred embodiment will provide a group consisting of coupons from national
manufacturers and the store chain in which the dispenser 250 is located. An alternate
group would consist of coupons from national manufacturers and all store chains in the
shoppers region. When the shopper selects a group of coupons, the coupon data for those
coupons is loaded onto the shopper's coupon card 1. Along with the coupon data, a
charge code reflecting the price of the coupon group is also loaded onto the coupon
card 1. After the coupon data is transmitted to coupon card 1, another routine will
display on touch screen 253 a "YES/NO" prompt inquiring whether the shopper desires to
edit the "shopping list" of coupons that may be stored in coupon card 1. If the shopper
presses the "Yes" portion of touch screen 253, two scrollable lists will appear. One
contains the coupons in coupon card 1's shopping list while the second contains all of
the coupons just transmitted to coupon card 1. By use of touch screen scrolling keys
which will appear next to each list, the shopper may move a highlight bar to a coupon
on the new coupon list and add the coupon to the shopping list by pressing "+" or other
appropriate symbol on touch screen 253 when a coupon in the shopping list is
highlighted. Coupons can be removed from the shopping list display by pressing a "-" or
other appropriate symbol on touch screen 253. When the shopper presses a symbol on
touch screen 253 indicating he wishes to make no more changes to the shopping list,
another "YES/NO" touch screen prompt will inquire as to whether the shopper wishes to
print the edited shopping list, which will contain redemption requirement data
reflecting desired products for which the consumer has a coupon discount in coupon card
1. If the shopper presses the "Yes" symbol on touch screen 253, the list will be
transmitted to printer 270 and printed out in hard copy form. Microprocessor 260 will
also transmit the new shopping list to coupon card 1 for storage in its RAM means 23.
When the shopper presses a symbol indicating the end of the transaction, seating device
273 will return the coupon card 1 to the customer.

Detailed Description Text (55):
In a preferred embodiment, dispenser 250 will be integrated in the LAN of the store by
being connected to server 200 described above. Dispenser 250 will then be capable of
receiving coupon data and advertising information from a remote database 500. Remote
database 500 will supply dispenser 250 with both advertising information to display on
the video monitor 251 and scrolling message display 252 and the electronic coupon data
which the customers will receive. It is envisioned that manufacturers and retail chains
will directly transmit their coupon data (bar codes, redemption requirement data and
other information) to the remote database 500 where the data will be segregated into
separate sub-databases. For example, coupon data from regional supermarket chains would
be placed in a regional database and coupon data from national manufacturers would
comprise a national database. Further databases may be defined by combining regional
and national databases for any given region. This last database will supply the
regional retail outlets with both national coupon data and the correct regional coupon
data for the outlets in the respective regions.

Detailed Description Text (56):
Advertising information may also be compiled in a similar manner. Manufacturers and
regional retailers may transmit to the remote database various video programs
advertising their products. This advertising data can then be broken down into national
and regional sub-databases just as the coupon data described above. Scrolling message
display advertising data will be provided to include the brand names of all products
for which coupon data is collected. Thus insuring every product having a coupon in the
database 500 will be advertised regardless of whether or not there is associated video

DD Text(58)
DDT (64)   In operation,
DDT (65)

WEST

☐ | Generate Collection | | Print |

L9: Entry 4 of 10   File: USPT   Nov 2, 1999

DOCUMENT-IDENTIFIER: US 5978013 A
TITLE: Apparatus and method for generating product coupons in response to televised offers

Brief Summary Text (7):
U.S. Pat. No. 5,070,404, issued to Bullock et al., describes a system that transmits two signals, each on a separate channel. The first signal carries coupon data, which are encoded along with a unique identifier into packets. The second signal carries an encoded "cue" signal. The coupon data are transmitted sequentially or periodically using a broadcast wheel. At the receiving end, the system receives the first signal and stores the decoded coupon data in memory. When the system receives the cue signal, it determines whether data having a matching identifier have been stored. If so, the system provides an indication to the user. The system may then retrieve the stored data and print a coupon.

Brief Summary Text (9):
U.S. Pat. No. 5,285,278, issued to Holman, describes a system that encodes coupon data into the closed-captioning space of a standard television signal. At the receiving end, the system decodes the coupon data during display of the associated picture information. In contrast to the Bullock et al. system, encoding the television signal in this manner provides transparent operation from the broadcaster's point of view. Nevertheless, the system inextricably ties the coupon data to the source video. A new videotaped advertisement must be produced if the manufacturer wishes to change the terms of the coupon offer or withdraw the offer altogether. Furthermore, different videotapes must be produced if the manufacturer wishes to offer different coupons in different geographic regions in which the advertisement is to be televised, or to offer coupons in certain geographic regions and not in others.

Detailed Description Text (4):
Advertising programming may offer a coupon for the product advertised. Advertisers may embed a coupon identifier, which is described below in further detail, in the video signals of their advertising programming using the method known in the art for providing closed-captioned text for the hearing-impaired. As known in the art, a closed-captioning decoder (not shown in FIG. 1) in either television 18 or subscriber unit 20 enables television 18 to display any closed-captioned text that may be embedded in video signal 24. The coupon identifier preferably includes closed-captioned text such as "COUPON AVAILABLE" to inform television viewers, particularly the hearing-impaired, that the advertiser is offering a coupon for the product. Alternatively or in addition, the advertising programming may have a spokesperson verbally inform the television viewer that a coupon is available.

Detailed Description Text (6):
In response to the advertisement, the television viewer may request that subscriber unit 20 print a coupon. The consumer may do this by pressing one or more buttons on subscriber unit 20 or on remote control unit 22. Subscriber unit 20 detects and decodes closed-captioning, as described below in further detail. When subscriber unit 20 detects a control code, it temporarily stores or queues the corresponding coupon identification number. If the television viewer requests that a coupon be printed, subscriber unit 20 retrieves or selects the queued coupon identification number.

Detailed Description Text (7):
Subscriber unit 20 monitors the data channel to detect coupon packets, as described below in further detail. If subscriber unit 20 has selected a coupon identification number in response to a television viewer's request to print a coupon, subscriber unit 20 searches for any packet that has a coupon identification number equal to the

selected coupon identification number. If it finds the packet, subscriber unit 20 reads the coupon image bits of the packet, reconstructs the bit-mapped image, and prints the coupon. The television viewer can thus only generate a coupon during the coupon availability window.

Detailed Description Text (21):
A data tuner 100 also receives the signals transmitted on cable distribution network 16. As described above, a coupon packet is frequency modulated on a data channel. To increase the number of packets that may be transmitted simultaneously, multiple data channels may be used. If multiple data channels are used, coupon processor 98 may provide a channel select signal 101 to data tuner 100. Coupon processor 98 may, for example, select the data channel in response to the coupon identification number using a lookup table. A frequency modulation detector 102 receives the tuned data signal 104 and detects the packet data 106, which is a serial bit stream.

Detailed Description Text (26):
In addition, if packet reader 108 detects a match in the coupon identification number field it transfers the header field data 110 in the next four header fields of the incoming packet to coupon processor 98. Coupon processor 98 converts this information into image format and then transfers it to image memory 118 as follows: Coupon processor 98 converts the ASCII-encoded universal product code (UPC) obtained from the packet header to a bar-code image format and writes the resulting additional image data 128 to an area of image memory 118 reserved for the UPC bar-code. Coupon processor 98 also converts the 256 bits received from demographic switch 120 to a bar-code image format and writes the resulting additional image data 128 to another area of image memory 118 reserved for the demographic bar-code. In addition, coupon processor 98 converts the ASCII-encoded date and time obtained from the packet header to an image format and writes the resulting additional image data 128 to still another area of image memory 118 reserved for the date and time that the advertisement was televised. Similarly, coupon processor 98 converts the ASCII-encoded cable company identification number to an image format and writes additional image data 128 to image memory 118. Image memory 118 thus stores an array of bits that, when printed, will produce a bit-mapped image of a coupon.

Detailed Description Text (28):
When coupon processor 98 has completed transferring the additional image information to image memory 118, coupon processor 98 provides a print signal 130 to a printer 132. Coupon processor 98 also deletes the coupon identification number from its memory. Printer 132 is preferably an economical thermal printer, but other types such as ink-jet printers, may also be suitable. Printer 132 has a roll of paper on which the coupon is printed. As the paper is advanced, the image is transferred in suitable groups from image memory 118 to printer 132 and printed. The resulting coupon will bear information identifying the product and the discount amount, the UPC bar-code, the demographic information bar-code, a date and time, and a cable company identification number. The television viewer can tear off the coupon when it has finished printing.

Detailed Description Text (30):
Display 124 is preferably a single-digit LED or LCD display that displays the number of coupon identification numbers that are currently stored in coupon processor 98 and thus represents the number of coupons currently available to the television viewer. A television viewer may select one of the available coupons using remote control unit 22 by entering a number on the keypad. For example, if display 124 displays the numeral "3" to indicate that three coupons are currently available, the television viewer may press the button labeled "1" to request that the third-to-last coupon offered be printed. (Another button may be pressed prior to the numeric button to notify controller 94 that the numeric button is request for a coupon rather than a request to change the television channel tuned.) Request signal 126 can provide processor 98 with this number, and processor 98 can use the number as an index to retrieve the corresponding coupon identification number from its memory. When coupon processor 98 deletes a coupon identification number from its memory, coupon processor 98 decrements the numeral displayed on display 124. The coupon availability window is preferably the same for all coupons offered over a given cable television system because the first coupon offered will always become unavailable first; a television viewer can thus more easily determine the coupon that corresponds to the numeral displayed on display 124.

Detailed Description Text (37):
A television viewer who sees the caption "COUPON AVAILABLE" on television 18 or who sees the notification provided by display 124 may press one or more buttons on remote control unit 136 to request that a coupon be generated. A television viewer may enter a

number using remote control unit 136 to select one of the available coupons. In response to this request, controller 134 provides a suitable request signal 144 to coupon processor 138. Processor 138 uses the number as an index to retrieve the corresponding coupon identification number from its memory.

Detailed Description Text (40):
Video source 150, which may be a videotape player, a satellite feed, studio camera or other device, produces a video signal 164, which transmitter 152 modulates and transmits over a television channel in the manner described above with respect to the embodiment illustrated in FIGS. 1-3. It should be noted that cable television distribution network 156 is merely an exemplary transmission medium, and that video signal 164 may be broadcast or distributed by standard broadcast television, by satellite television, by a telephone network, or by any other medium known in the art. Subscriber unit 160 receives the transmitted television signal and tunes a channel that the user selects using remote control 162. As in the embodiments described above, subscriber unit 160 functions both as a coupon generator and as a "converter box" of the type commonly used by subscribers to cable television services. Television tuner 76 heterodynes the selected channel to a specific frequency band, such as that corresponding to channel 2 or 3, and provides that signal to television 158. Television 158 displays the corresponding programming imagery for viewing by a television viewer (not shown). As described below, a user may enter commands using remote control 162 to request that subscriber unit 160 print coupons offered in televised product advertisements.

Detailed Description Text (43):
Computer 218 provides a copy of the detected coupon identifier and a copy of the coupon information corresponding to the detected coupon identifier to a demultiplexor/buffer/parallel-to-serial converter (DEMUX) 220. DEMUX 220 routes the coupon identifier and corresponding coupon information to the one of teletext encoders 182-188 that computer 218 specifies. DEMUX 220 also buffers the coupon identifier and corresponding coupon information and converts it from parallel to serial format. The selected one of teletext encoders 182-188 encodes the coupon identifier and corresponding coupon information into the corresponding video signal in accordance with the WST standard. Teletext encoders 182-188 are advantageous because the WST standard facilitates a high bit rate relative to other encoding methods such as closed-captioning. Furthermore, commercially available teletext encoders typically include error detection and correction. This embodiment thus allows all of the coupon information to be embedded into the transmitted video signal, in contrast to the above-described embodiment in which the coupon information is transmitted separately from the televised advertisement over a digital data channel.

Detailed Description Text (46):
The first field 234 is the coupon identifier itself. The second field 236 is the number of the television channel on which the coupon identifier was received. Although not previously mentioned above with respect to FIG. 6, computer 216 preferably includes the channel number in the coupon information to be transmitted. For purposes of processor 224 determining whether a previously stored coupon identifier matches a received coupon identifier, processor 224 may compare only field 234 to the received coupon identifier or may compare both field 234 to the received coupon identifier and field 236 to the channel number. A user may view an advertisement offering the same coupon on two or more different channels within a short period of time. If the broadcaster chooses to allow users to print a coupon each time the user views the advertisement on a different channel, the broadcaster transmits the channel number with the coupon information. Processor 224 will create a record 233 for the newly received coupon because the channel on which it was broadcast is different from that on which the coupon was previously broadcast. If the broadcaster chooses to allow users to print a coupon only once (within a predetermined period) regardless of channel, the broadcaster transmits the same "dummy" channel number with the coupon information regardless of the channel on which the advertisement is broadcast. Processor 224 will not create a new record 233 because the dummy channel number corresponding to the newly received coupon matches the value in field 236 corresponding to the coupon previously received. Those of skill in the art will appreciate that, alternatively or in addition to allowing the broadcaster to select whether coupon printing is channel-independent, the coupon information itself may include a bit that instructs processor 224 whether or not to include field 236 in its comparison. The advertiser may thus select whether or not coupon printing is channel-independent by setting the value of this bit at the time the source video is produced.

Detailed Description Text (48):

The fourth field 240 contains two pointers. A first or "head" pointer contains the address in coupon information section 232 of the first byte of corresponding coupon information, and a second or "tail" pointer contains the address in coupon information section 232 of the last byte of corresponding coupon information. Alternatively, fourth field 240 may have only a head pointer and the length of the coupon information. Before processor 224 stores coupon information in coupon information section 240 as described above, processor 224 reads the tail pointer in field 240 of the most recently added record in order to determine the byte at which it should begin storing the coupon information. After storing the coupon information, if processor 224 determines, in the manner described above, that it should create a new record 233, processor 224 stores in field 240 of the new record the addresses of the first and last bytes. It should be noted that if processor 224 determines that it should not create a new record (because the coupon identifier was previously received and a record containing it has already been created), the corresponding coupon information will simply be overwritten when new coupon information is stored in response to detection of another coupon identifier. The coupon information stored in coupon information section 232 may include all of the information described above with respect to the other embodiments described above.

Detailed Description Text (49):
Processor 224 maintains a number of timers (not shown), each corresponding to a record stored in coupon identifier section 230. A user may only print a coupon within a predetermined interval, e.g., five minutes, after the corresponding advertisement is broadcast. A new timer is created and begins counting when a record 233 is created. When processor 224 determines that the record 233 has existed for five minutes, it deletes the record 233 and decrements the numeral displayed on display 234. Records 233 are thus deleted in the order they were created. To ensure that the coupons can be indexed by reference to the numeral displayed on display 234, processor 224 decrements the value stored in field 238 of each record 233. The oldest record thus has a "1" stored in field 238, the next oldest a "2", and so forth.

Detailed Description Text (50):
A television viewer who sees the caption "COUPON AVAILABLE" on television 158 or who sees the notification provided by display 234 may press one or more buttons on remote control unit 162 to request that a coupon be generated. As in the other embodiments described above, the television viewer may enter a number using remote control unit 162 to select one of the available coupons. In response to this request, controller 242 commands processor 224 to attempt to print a coupon. Processor 224 first uses the number as an index to retrieve the corresponding coupon identification number from coupon identifier section 230 of RAM 238. Processor 224 reads field 238 of each record 233 stored in coupon identifier section 230 to determine the record 233 corresponding to the number the user entered.

Detailed Description Text (52):
Processor 224 then retrieves the head and tail pointers from fourth field 240 of the record 233 corresponding to the selected coupon and uses the pointers to retrieve the coupon information from coupon information section 232. Processor 224 formats the retrieved coupon information and provides it to printer 244, which produces a coupon.

CLAIMS:

1. A system for transmitting token information embedded in a video signal from a first location to a second location remote from said first location, the system comprising:

a data storage medium at said first location, said token information stored in said data storage medium;

a detector at said first location for monitoring a video signal to detect a token identifier embedded in said video signal;

a controller at said first location for retrieving token information from said data storage medium in response to detection of said embedded token identifier, said token information corresponding to said embedded token identifier, said controller embedding said token information in said video signal;

a receiver at said second location for receiving a video signal having embedded token information transmitted from said first location;

an output device at said second location; and